

# Ziyang Hu

(+86)18827027980 | tzuyanghu@foxmail.com  
Changsha, Hunan Province



## SUMMARY

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- 7 years of Bachelor&Master Degree program with hard work and solid professional knowledge in Huazhong University of Science and Technology.
- A strong interest in scientific research. Published TWO SCI Journal papers and ONE conference paper during Master's degree.
- Be good at communication and cooperation, and have a sense of collective honor and responsibility.

## EDUCATION

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**Central South University** Sep 2022 - Jun 2026

Computer Science Doctor School of Computer Science and Engineering Changsha, Hunan Province

- Research on: Virtual Haptics, Virtual Reality, Medical Simulation, Deep Learning
- Relevant Coursework: Computer Graphics, Digital Image Processing, Artificial Intelligence, Data Mining and Machine Learning, etc.

**Huazhong University of Science and Technology** Aug 2018 - Jun 2021

Solid Mechanics Master Wuhan, Hubei Province

- GPA : 3.9 / 4.0 (Top 10%)
- Honors/Awards:
  - Merit Student of Huazhong University of Science and Technology, etc.
- Relevant Coursework: Fluid Structure Interaction Vibration, Strength of Materials, Advanced Solid & Fluid Mechanics, etc.

**Huazhong University of Science and Technology** Aug 2014 - May 2018

Engineering Mechanics Bachelor School of Civil Engineering and Mechanics Wuhan, Hubei Province

- GPA : 3.7 / 4.0 (Top 20%)
- Honors/Awards:
  - Outstanding Graduate of Huazhong University of Science and Technology in 2018, etc.
- Relevant Coursework: Mechanics of Materials, Structural Mechanics, Electrotechnics, C++, etc.

## RESEARCH

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**Dynamics of the Pipe Conveying Fluid** Aug 2018 - Jun 2021

Member Wuhan, Hubei Province

- Mainly explored the vibration behavior (stability) of the pipe conveying fluid under different conditions, and gave the optimization method to improve the stability of the pipe.
- Research Output:

[1] Hu Ziyang, Wang Lin. Influence of a Crack on the Vibration Characteristics of Cantilever Pipe Conveying Fluid. The 2th International Conference on Mechanics of Advanced Materials and Structures, October 19-22, 2019, Nanjing, China. (Oral Presentation)

[2] Wang, Y. (Supervisor), Hu, Z., Wang, L. et al. Stability analysis of a hybrid flexible-rigid pipe conveying fluid. Acta Mech. Sin. 38, 521375 (2022). <https://doi.org/10.1007/s10409-021-09020-x>

[3] CHEN W, HU Z, DAI H, et al. Extremely large-amplitude oscillation of soft pipes conveying fluid under gravity [J]. Applied Mathematics and Mechanics, 2020, 41(9): 1381-400. <https://doi.org/10.1007/s10483-020-2646-6>

**Numerical Study on the Influence of Solid Particles on the Internal Flow Field of Rocket Engine under Overload**

Apr 2016 - Apr 2017  
Wuhan, Hubei Province

Team leader

- Explored the impact of solid particles on the internal flow field and combustion stability of a rocket engine when it is overloaded.
- The development and results of the project were unanimously approved by the judges, and the questions were successfully concluded through the defense.

**Structural Optimization Design Based on Topology Optimization Method**

Jun 2016 - Jul 2016

Member

Dalian, Liaoning Province

- Based on the topology shape function, according to the loading situation, the initial configuration is calculated and checked, the model reconstruction is completed, and finally The optimal structure model is given.

**LEADERSHIP EXPERIENCE**

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**Committee of School of Civil Engineering and Mechanics, Huazhong University of Science and Technology, Communist Party of China**

Nov 2018 - Nov 2019  
Wuhan, Hubei Province

Commissary in charge of organization First Party Branch of Graduate Mechanics

**Union of Youth League Committee and Student Union**

Aug 2015 - Aug 2016

Minister Academic Department

Wuhan, Hubei Province

**School of Civil Engineering and Mechanics**

Aug 2014 - Aug 2016

Monitor Engineering Mechanics Class 1402

Wuhan, Hubei Province

**SKILLS, CERTIFICATIONS & OTHERS**

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- **Skills:** C++ Programming, Deep Learning, Mechanical Analysis, CAD, Matlab
- **Certifications:** National Computer Rank Examination Level-4 Embedded System Development Engineer Qualification Certificate
- **Languages:** English(CET-6)
- **Interests:** Basketball(U League), Badminton, Music, Animation
- **Activities:** 2016-2017 Chinese College Students Marathon League, Station of Huazhong University of Science and Technology & 2017 Campus Spring Running Race of Huazhong University of Science and Technology (1523/20000)